

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number
WO 2005/035598 A1

(51) International Patent Classification⁷: C08F 110/06, C08L 23/10

(74) Agent: WAKEFIELD, Charles, P.; The Dow Chemical Company, Intellectual Property, P.O. Box 1967, Midland, MI 48641-1967 (US).

(21) International Application Number:
PCT/US2004/033121

(22) International Filing Date: 7 October 2004 (07.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/509,152 7 October 2003 (07.10.2003) US
60/563,924 21 April 2004 (21.04.2004) US

(71) Applicant (for all designated States except US): DOW GLOBAL TECHNOLOGIES, INC. [US/US]; Washington Street, 1790 Building, Midland, MI 48674 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PIERNI, Peter, E. [US/US]; 213 Rosemary Lane, Lake Jackson, TX 77566 (US). PIRTLE, Shaun, E. [US/US]; 3074 County Road 506, Brazoria, TX 77422 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

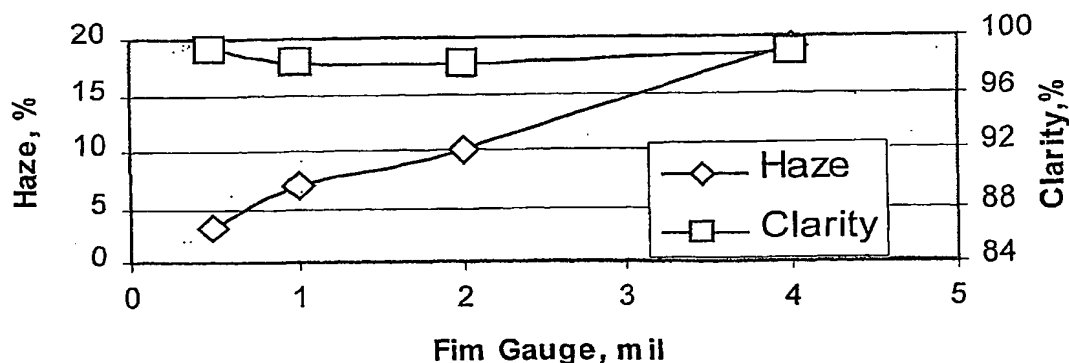
Published:

— with international search report

[Continued on next page]

(54) Title: POLYPROPYLENE COMPOSITION FOR AIR QUENCHED BLOWN FILMS

Optics vs. Gauge for Example 1



(57) Abstract: The invention is directed to a polypropylene resin, which is suitable for manufacturing an air quenched blown film. The resin has a melt flow rate of greater than 5 g/10 min, less than 2% xylene solubles, a pentad isotacticity of greater than 95%, an isotactic pentad/triad ratio of greater than 95%, a crystallinity of at least 65%, and a crystallization temperature of at least 127°C. The polypropylene resin contains from 500 ppm to 2500 ppm of a nucleator/clarifier additive. A quenched blown film made from resin exhibits a crystallization onset temperature of at least 116°C and a crystallization half-life time of less than 4.1 seconds or less when tested using fast DSC analysis with a scan rate of 200°C/minute.

WO 2005/035598 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.